

REMARKS

Applicant would like to thank the Examiner for the careful consideration given the present application. The application has been carefully reviewed in light of the Office Action, and amended as deemed necessary to place the application into condition for allowance.

By this Amendment "E" claims 2, 4, 5, and 7-14 have been amended and claim 3 has been canceled. No new claims have been added to the application, and no new matter has been added to the application. Thus, claims 1-14 are presently pending in the application, with claim 1 having previously been withdrawn from consideration.

More particularly, claim 2 has been amended to read as follows:

A method for manufacturing a skeleton structure member of a transport machine, the method comprising:

placing a bag or a vessel that has been pre-packed with multiple discrete microcapsules that include a core substance consisting of a liquid or a solid wrapped with a thermoplastic resin film inside a skeleton member and/or a space bounded by the skeleton member and a panel member peripheral thereto; and

heating the microcapsules to gasify the core substance and soften the thermoplastic film and thereby cause the microcapsules to expand and thus form hollow granules that, upon cooling, solidify within the skeleton member and/or the space bounded by the skeleton member and the panel member peripheral thereto and bond together as a solidified granular bulk material.

Support for the amendments to claim 2 can be found in paragraphs [0072] and [0076] of the application as published as US 2006/0233978 A1. The subject matter of claim 3 has been incorporated into claim 2, thus necessitating the cancellation claim 3. Claims 4, 5, and 7-14 were amended to correct a previously

undiscovered dependency error. Such claims now properly depend from claim 2, rather than claim 1, which has previously been withdrawn from consideration.

In the prior Office Action on the merits, the Examiner rejected claims 2-14 under 35 U.S.C. §103(a) as being unpatentable over Coon et al. (US 7,169,344) in view of Wycech (US 6,406,078). The Examiner contends that Coon et al. discloses the basic method of manufacturing a skeleton structure member as claimed, except that Coon et al. does not appear to disclose the aspect of making the granules by wrapping a core substance of a liquid or a solid with a film. Applicant notes that the preferred material for use in the invention according to Coon et al. is a heat-activated epoxy-based thermosetting resin having foamable characteristics upon activation through the use of heat (see col. 8, lines 7-10).

The Examiner contends that Wycech discloses the use of granules that include a core substance of a liquid or a solid wrapped with a film, and that it would have been obvious to a person having ordinary skill in the art at the time of the invention to use the granules according to Wycech in the method according to Coon et al. Applicant respectfully disagrees.

Wycech does not disclose the use of "multiple discrete microcapsules" (as claimed in claim 2), which the Examiner refers to as granules. On the contrary, Wycech discloses the use of a resin-based layer 18, which includes a synthetic resin, a "cell-forming agent" and a filler (see col. 5, lines 4-5). As in Coon et al., thermosetting resins are preferred for use as the synthetic resin in the invention according to Wycech (see col. 5, lines 48-50). The "cell-forming agent" is a material that produces bubbles, pores or cavities in the synthetic resin-based layer 18 (see col. 5, lines 9-10). Suitable "cell forming agents" include microspheres (glass or

plastic) or bubbles created through the use of blowing agents (see col. 5, lines 15-30). Thus, the material according to Wycech constitutes a layer that includes materials that can form bubbles or define bubbles in the layer. It does not constitute "multiple discrete microcapsules" as claimed in claim 2, which constitute discrete granules consisting of a thermoplastic resin film that wraps a core material.

Contrary to the Examiner's contentions, Wycech does not disclose discrete granules having a solid core-shell composition. Wycech teaches two methods of applying the resin-based material: spraying and application using a duck-bill applicator (see col. 6, lines 37-48). The Examiner will note that in both application methods, the resin-based material is applied as a "wet" liquid to the outer surface of the tube 16 to form a layer. It is never applied in the form of discrete solid microcapsules, as claimed in the present application.

Thus, the combination of Coon et al. and Wycech does not disclose, teach or suggest applicant's invention as claimed. Claim 2, as amended, is clearly patentable over Coon et al. and Wycech. Claims 4-14, which depend from claim 2 directly or through an intervening claim, are also patentable over the applied references. Reconsideration of the prior rejection is respectfully requested.

In light of the foregoing, it is respectfully submitted that the present application is in a condition for allowance and notice to that effect is hereby requested. If it is determined that the application is not in a condition for allowance, the Examiner is invited to initiate a telephone interview with the undersigned attorney to expedite prosecution of the present application.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 18-0160, our Order No. SHM-16348.

Respectfully submitted,

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